

REMARKS**Response to the §112 Rejection**

In response to the Examiner's rejection of claims 1-4, 6-9, 12-14, and 17-19 under 35 USC §112, second paragraph in the October 12, 2005 Office Action, Applicants have amended claims 1 and 17.

Specifically, claim 1, from which claims 2-4, 6-9, 12-14, and 17-19 depend, has been amended to positively recite "forming first silicide regions each having a first vertical silicide thickness in said substrate" and "forming second silicide regions in said substrate, wherein said second silicide regions each have a second vertical silicide thickness that is greater than said first vertical silicide thickness, and wherein the first vertical silicide thickness is from about 2 to about 15 nm."

Support for such claim amendments can be found in Figures 3f and 3h of the instant specification, which show formation of first silicide regions 11 in the substrate 10 and subsequent formation of second silicide regions 12 in the substrate 10, at a location different from that of the first silicide regions 11. The first silicide regions 11 each have a vertical thickness T1, and the second silicide regions 12 each have a vertical thickness T2 that is greater than T1. Further, the instant specification describes at paragraph [0045] that the first silicide thickness T1 is preferably from about 2 nm to about 15 nm.

It is therefore clear that the thickness, as recited by claim 1 of the present application, refers to the vertical thickness of each individual silicide region, which addresses the issues raised by the Examiner regarding whether the applicants refer to vertical thicknesses or lateral thicknesses (see Office Action, page 2, line 18).

The limitation that the first silicide regions "have a lateral thickness from about 2 to about 15 nm" has been deleted from claim 1. Therefore, the issue raised by the Examiner regarding whether the lateral thickness is the total lateral thickness of all of the first silicide regions or of each silicide region (see Office Action, page 2, lines 13-14) is moot.

Further, the limitation that the first silicide regions are formed "as well as atop a surface of said gate region" has been deleted from claim 1. Figures 3f and 3h of the instant specification show that a third silicide region 4 is formed on the surface of the gate region 3. This third silicide region 4 is not a part of the first and second silicide regions 11 and 12 and

is referred to by a different reference numeral. Therefore, it is clear that neither the first nor the second silicide regions is atop of the gate region in Applicants' claimed invention, as recited by the amended claim 1, which addresses the issue raised by the Examiner regarding which element is atop a surface of the gate region (see Office Action, page 2, lines 12-13).

Claim 1, from which claims 6-9 depend, has also been amended to recite "forming first spacers each having a first spacer width" and "forming second spacers atop said substrate each having a second spacer width." It is therefore clear that the spacer width, as recited by claim 1 of the present application, refers to the width of each individual spacer, which addresses the issues raised by the Examiner regarding whether applicants refer to the width of one spacer or the width of the combined spacers (see Office Action, page 2, lines 20-21).

Claim 17 has been amended to recite that "said first vertical silicide thickness is from about 5 nm to about 12 nm," which addresses the issues raised by the Examiner regarding which thickness applicants refer to. Support for the claim amendment can be found in the instant specification at paragraph [0045], lines 1-4.

The amended claims 1 and 17 therefore overcome the Examiner's rejections under 35 USC §112, second paragraph.

Response to the §103 Rejections

In the October 12, 2005 Office Action, the Examiner rejected claims 1, 6-9, 12-14, and 17-19 under 35 U.S.C. §103(a) as allegedly unpatentable over U.S. Patent No. 6,063,681 to Son (hereinafter "Son"). Further, the Examiner rejected claims 2-4 under 35 U.S.C. §103(a) as allegedly unpatentable over Son in view of U.S. Patent No. 6,313,020 to Kim (hereinafter "Kim").

Applicants hereby traverse the Examiner's rejection of claims 1-4, 6-9, 12-14, and 17-19, for the following reasons:

Claim 1, from which claims 2-4, 6-9, 12-14, and 17-19 depend, expressly recites first and second silicide regions, the first silicide regions each having a first vertical silicide thickness, the second silicide regions each having a second vertical silicide thickness,

wherein the second vertical silicide thickness is greater than said first vertical silicide thickness, and wherein said first vertical silicide thickness is from about 2 to about 15 nm.

The Son reference only discloses that a first metal layer 28 is deposited on an entire surface of the semiconductor substrate 21 to a thickness ranging 10-20 nm (see Son, column 3, line 60).

However, the thickness of about 10 nm to 20 nm, as disclosed in column 3, line 60 of the Son reference, is the thickness of the first metal layer 28, **not** the thickness of the first silicide region, which is referred to as first metal silicide 29 in Figure 3E of Son. In fact, Son expressly discloses in column 3, lines 23-24 that the thickness of the first metal silicide region 29 is about 200-400 Å (i.e., 20-40 nm), **not** 100-200 Å.

More importantly, nothing in Son teaches or suggests modification of the first metal silicide layer 29, much less formation of a first silicide region having a first vertical silicide thickness from about 2 to about 15 nm, as expressly recited by claims 1-4, 6-9, 12-14, and 17-19 of the present application. Therefore, Son cannot support a *prima facie* case of obviousness against Applicants' claimed invention as recited in claims 1-4, 6-9, 12-14, and 17-19.

The secondary reference Kim cannot remedy the above-described deficiency of Son.

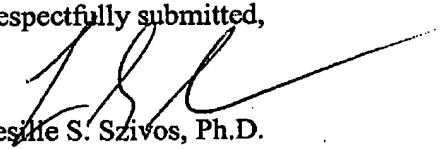
Accordingly, claims 1-4, 6-9, 12-14, and 17-19 of the present application patentably distinguish over the cited references, and Applicants respectfully request the Examiner to withdraw the 103 rejections of such claims.

CONCLUSION

Based on the foregoing, claims 1-4, 6-9, 12-14, and 17-19, as amended, are in condition for allowance. Issuance of a Notice of Allowance for the application is therefore requested.

If any issues remain outstanding, incident to the formal allowance of the application, the Examiner is requested to contact the undersigned attorney at (516) 742-4343 to discuss same, in order that this application may be allowed and passed to issue at an early date.

Respectfully submitted,


Leslie S. Szivos, Ph.D.
Registration No. 39,394

SCULLY, SCOTT, MURPHY & PRESSER, P.C.
400 Garden City Plaza, Suite 300
Garden City, New York 11530
(516) 742-4343
LSS/MY:vh